

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Withdrawn) An isolated polypeptide selected from the group consisting of:
 - a) a polypeptide comprising an amino acid sequence of SEQ ID NO: 1
 - b) a polypeptide comprising a naturally occurring amino acid sequence having at least 90% sequence identity to the amino acid sequence of SEQ ID NO: 1, and
 - c) a biologically active fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO: 1.
2. (Withdrawn) An isolated polypeptide of claim 1, comprising an amino acid sequence of SEQ ID NO: 1.
3. (Currently Amended) An isolated polynucleotide encoding a polypeptide selected from the group consisting of:
 - a) a polypeptide comprising an amino acid sequence of SEQ ID NO: 1,
 - b) a polypeptide comprising ~~a naturally occurring~~ an amino acid sequence having at least ~~90%-~~ 95% sequence identity to the amino acid sequence of SEQ ID NO: 1, said polypeptide having ~~phosphatase-inhibitory~~ detoxification activity, and
 - c) a biologically active fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO: 1, said fragment having ~~phosphatase-inhibitory~~ detoxification activity.
4. (Currently Amended) The isolated polynucleotide of claim 3, wherein said polynucleotide encodes encoding a polypeptide ~~of claim 2~~ comprising an amino acid sequence of SEQ ID NO: 1.
5. (Previously Presented) An isolated polynucleotide of claim 4 comprising the sequence of SEQ ID NO: 3.
6. (Original) A recombinant polynucleotide comprising a promoter sequence operably linked to a polynucleotide of claim 3.
7. (Original) A cell transformed with a recombinant polynucleotide of claim 6.

8. (Canceled)

9. (Currently Amended) A method for producing a polypeptide selected from the group consisting of a polypeptide comprising an amino acid sequence of SEQ ID NO: 1, a polypeptide comprising a naturally occurring amino acid sequence having at least ~~90%~~ 95% sequence identity to the amino acid sequence of SEQ ID NO: 1, and a biologically active fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO: 1 ~~of claim 1~~, the method comprising:

- a) culturing a cell under conditions suitable for expression of the polypeptide, wherein said cell is transformed with a recombinant polynucleotide, and said recombinant polynucleotide comprises a promoter sequence operably linked to a polynucleotide encoding the polypeptide ~~of claim 1~~, and
- b) recovering the polypeptide so expressed,
wherein said polypeptide has detoxification activity.

10. (Withdrawn) An isolated antibody which specifically binds to a polypeptide of claim 1.

11. (Previously Presented) An isolated polynucleotide selected from the group consisting of:

- a) a polynucleotide comprising a polynucleotide sequence of SEQ ID NO: 3,
- b) a polynucleotide comprising ~~a naturally occurring~~ an polynucleotide sequence having at least ~~90%~~ 95% sequence identity to the polynucleotide sequence of SEQ ID NO: 3 **and encodes a polypeptide that has detoxification activity,**
- c) a polynucleotide complementary to a polynucleotide of a),
- d) a polynucleotide complementary to a polynucleotide of b), and
- e) an RNA equivalent a)-d).

12. (Canceled)

13. (Withdrawn) A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 11, the method comprising:

a) hybridizing the sample with a probe comprising at least 20 contiguous nucleotides comprising a sequence complimentary to said target polynucleotide in the sample, and which probe specifically hybridizes to said target polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide or fragments thereof, and

b) detecting the presence or absence of said hybridization complex, and, optionally, if present, the amount thereof.

14. (Canceled)

15. (Canceled)

16. (Withdrawn) A composition comprising an effective amount of a polypeptide of claim 1 and a pharmaceutically acceptable excipient.

17. (Withdrawn) A composition of claim 16, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 1.

18. (Canceled)

19. (Withdrawn) A method for screening a compound for effectiveness as an agonist of a polypeptide of claim 1, the method comprising

a) exposing a sample comprising a polypeptide of claim 1 to a compound, and

b) detecting agonist activity in the sample.

20. (Canceled)

21. (Canceled)

22. (Withdrawn) a method for screening a compound for effectiveness as an antagonist of a polypeptide of claim 1, the method comprising:

a) exposing a sample comprising a polypeptide of claim 1 to a compound, and

b) detecting antagonist activity in the sample.

23. (Canceled)

24. (Canceled)

25. (Withdrawn) A method of screening for a compound that specifically binds to the polypeptide of claim 1, said method comprising the steps of:

- a) combining the polypeptide of claim 1 with at least one test compound under suitable conditions, and
- b) detecting binding of the polypeptide of claim 1 to the test compound, thereby identifying a compound that specifically binds to the polypeptide of claim 1.

26. (Canceled)

27. (Canceled)

28. (Withdrawn) A method for assessing toxicity of a test compound, said method comprising:

- a) treating a biological sample containing nucleic acids with the test compound;
- b) hybridizing the nucleic acids of the treated biological sample with a probe comprising at least 20 contiguous nucleotides of a polynucleotide of claim 11 under conditions whereby a specific hybridization complex is formed between said probe and a target polynucleotide in the biological sample, said target polynucleotide comprising a polynucleotide sequence of a polynucleotide of claim 11 or fragment thereof;
- c) quantifying the amount of hybridization complex; and
- d) comparing the amount of hybridization complex in the treated biological sample with the amount of hybridization complex in an untreated biological sample, wherein a difference in the amount of hybridization complex in the treated biological sample is indicative of toxicity of the test compound.

29-60. (Canceled)

61. (Previously Presented) A microarray wherein at least one element of the microarray is a polynucleotide of claim 11.

62. (Previously Presented) A method of generating an expression profile of a sample which contains polynucleotides, the method comprising:

- a) labeling the polynucleotides of the sample,

- b) contacting the elements of the microarray of claim 29 with the labeled polynucleotides of the sample under conditions suitable for the formation of a hybridization complex, and
- c) quantifying the expression of the polynucleotides in the sample.

63. (New) An isolated polynucleotide encoding a polypeptide, wherein the polypeptide comprises an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 1 and possesses detoxification activity.

64. (New) The isolated polynucleotide of claim 63, wherein the polypeptide consists essentially of SEQ ID NO: 1.

65. (New) The isolated polynucleotide of claim 63, wherein the polypeptide consists of at least one conservative amino acid substitution and possesses detoxification activity.

66. (New) An isolated polynucleotide encoding a polypeptide variant of SEQ ID NO: 1, wherein the polypeptide variant consists of a conservative amino acid substitution and possesses detoxification activity.